In the Claims

1. (Currently Amended) A method of provisioning a path between two specified nodes in a connectionless communications network such that the path has a specified bandwidth and a guaranteed quality of service is provided over that path, wherein said communications network supports a differentiated service mechanism, said method comprising the steps of:

(i) specifying a bandwidth and guaranteed quality of service to be provided over the path;

(i)(ii) accessing a model of said connectionless communications network which is separate from the network;

(ii)(iii) determining a path between the two specified nodes using said model;

(iii)(iv) assessing the amount of available bandwidth over said path using said model; and

(iv)(v) producing provisioning information to provision said path using said model for output to the network or a network simulator.

2. (Original) A method as claimed in claim 1 wherein said step (iii) of assessing the amount of available bandwidth comprises accessing a bandwidth tally for each node in said path.

3. (Original) A method as claimed in claim 2 which further comprises accessing a bandwidth tally for each link in said path.

4. (Original) A method as claimed in claim 1 which further comprises inputting said provisioning information to said communications network in order to provision said communications network.

5. (Original) A method as claimed in claim 1 wherein said path is auto-generated.

6. (Currently Amended) A method as claimed in claim 4 wherein said path is determined using an algorithm such as the shortest path first algorithm.

7. (Original) A method as claimed in claim 1 wherein said path is determined using a discovery method.

8. (Original) As claimed in claim 1 wherein said path is pre-specified by a network operator.

9. (Original) A method as claimed in claim 1 which further comprises the step of adding service type labels to traffic.

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10. (Original) A method as claimed in claim 1 wherein said connectionless communications network is an internet protocol communications network.

11. (Original) A method as claimed in claim 1 wherein said path is a virtual leased line.

12. (Original) A method as claimed in claim 1 which further comprises the step of inputting information about said path, said specified bandwidth and quality of service, said differentiated service mechanism and said provisioning information to a simulator which is arranged to forecast traffic congestion points in said connectionless communications network.

13. (Original) A method as claimed in claim 1 wherein said differentiated service mechanism comprises priority queuing.

14. (Original) A method as claimed in claim 1 wherein said differentiated service mechanism comprises allocating traffic to one of two or more service types and one of said two specified nodes is arranged to label traffic according to its allocated service type.

15. (Original) A method as claimed in claim 1 wherein said differentiated service mechanism comprises allocating traffic to one of two or more service types and wherein said method further comprises determining the proportion of the bandwidth at a given node or link that is reserved for use by traffic of a given service type.

16. (Original) A method as claimed in claim 15 wherein said provisioning information is determined such that said proportion is less than a specified threshold level.

17. (Currently Amended) A computer system for provisioning a path between two specified nodes in a connectionless communications network such that the path has a specified bandwidth and a guaranteed quality of service, wherein said communications network supports a differentiated service mechanism, said computer system comprising:

(i) a processor arranged to access a model of the connectionless communications network which is separate from the network and to record a specified bandwidth and guaranteed quality of service for the path;

(ii) said processor being arranged to determine a path between the two specified nodes using said model; and wherein said processor is further arranged to assess the amount of available bandwidth over said path using said model; and

(iii) wherein said processor is further arranged to use said model to produce provisioning information to provision said path for output to the network or a network simulator.

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18. (Original) A computer system as claimed in claim 17 which further comprises a graphical user interface provided on a client computer connected to said computer system.

19. (Original) A computer system as claimed in claim 18 wherein said graphical user interface is web-based.

20. (Original) A computer system as claimed in claim 17 wherein said processor is further arranged to access a bandwidth tally for each node in said path.

21. (Original) A computer system as claimed in claim 17 wherein said processor is arranged to determine said path using auto-generation.

22. (Original) A computer system as claimed in claim 17 wherein said connectionless communications network is an internet protocol communications network.

23. (Original) A computer system as claimed in claim 17 wherein said path is a virtual leased line.

24. (Original) A computer system as claimed in claim 17 which further comprises a simulator arranged to accept information about said path, said specified bandwidth and quality of service, said differentiated service mechanism and said provisioning information and wherein said simulator is arranged to forecast traffic congestion points in said connectionless communications network.

25. (Original) A computer system as claimed in claim 17 wherein said differentiated service mechanism comprises priority queuing.

26. (Currently Amended) A computer program stored on a computer readable medium, said computer program being arranged to control a computer system for provisioning a path between two specified nodes in a connectionless communications network such that the path has a specified bandwidth and a guaranteed quality of service is provided over that path, wherein said communications network supports a differentiated service mechanism, said computer program being arranged to control said computer system such that:

(i) A model of the connectionless communications network is accessed which is separate from the network;

(ii) a path between the two specified nodes is determined using said model;

(iii) the amount of available bandwidth over said path is assessed using said model; and

(iv) provisioning information for output to the network or a network simulator to provision said path is produced using said model.

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27.	(Original) A connectionless communications network comprising a computer system as claimed in claim 17.